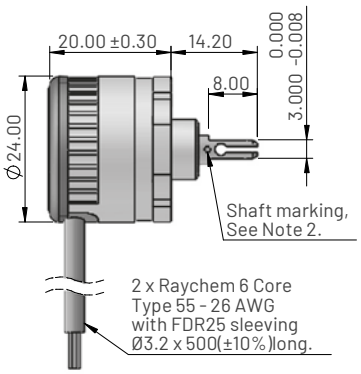
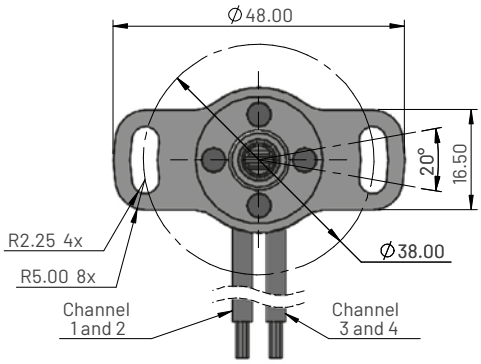
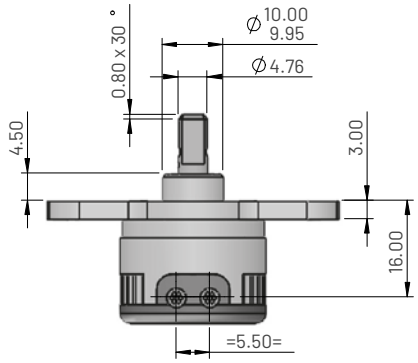
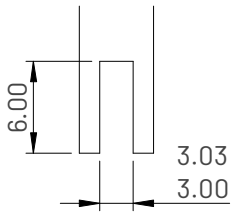
Dimensions for MHR5810 - Flange mounting with a sprung shaft







Driving side detail



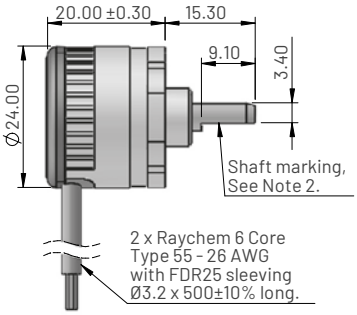
Ordering code

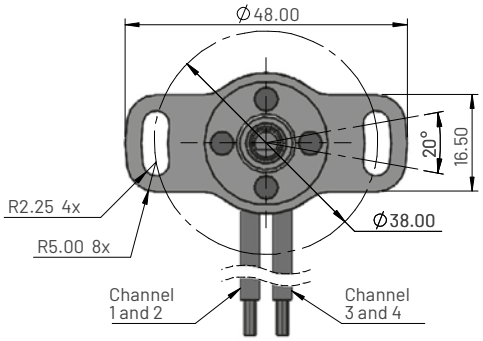
MHR5810 XV-XXX

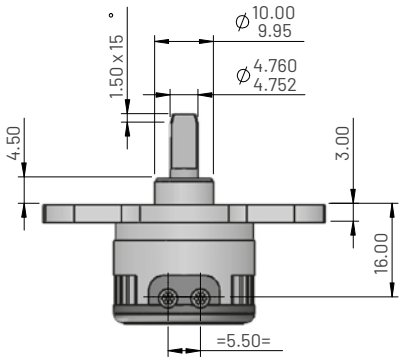
Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise
- D = Channel 1 output anticlockwise
  Channel 2 output clockwise

Electrical angle in degrees

Dimensions for MHR5820 - Flange mounting with a round shaft







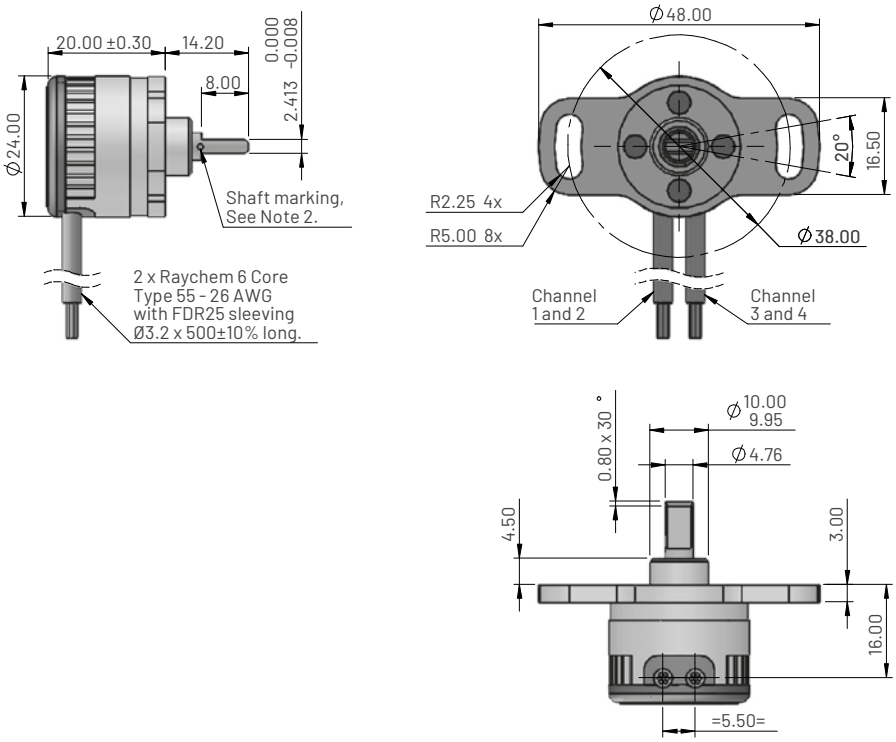
Ordering code

MHR5820 XV-XXX

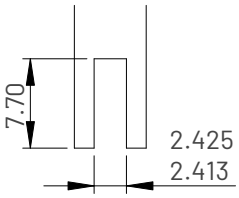
Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise
- D = Channel 1 output anticlockwise
  Channel 2 output clockwise

Electrical angle in degrees

Dimensions for MHR5830 - Flange mounting with a sprung shaft



Driving side detail



Ordering code

MHR5810 XV-XXX

Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise
- D = Channel 1 output anticlockwise
  Channel 2 output clockwise

Electrical angle in degrees

Electrical and mechanical specification for MHR5800 Series

Input specification		
Supply voltage (Vs)	5.0±10% regulated	VDC
Over voltage protection	Up to 24	VDC
Supply current	<15	mA
Reverse polarity protection	Up to -12	VDC
Power on settlement time	<25	ms
Input voltage rise time	0.25 minimum	V/ms
Output specification		
Output type	Analogue voltage	
Output direction	Clockwise or anticlockwise (specified at time of order)	
Voltage output (Iout)	0-Vs	V DC
Line regulation	Ratiometric with Vs	
Monotonic range	0 - 100% measurement range	
Load resistance (max)	>10K	Ohms
Output noise	<5	mV RMS
Performance specification		
Measurement range	20 to 360 in 1° increments	°
Resolution	0.025	% of measurement range
Non-linearity (Note 5)	<±0.25	%FS
Phasing (Note 6)	<0.5	%FS
Temperature coefficient (Vout)	<±0.003	%FS/°C
Update rate (nominal)	500	Hz
Max operating speed	600	RPM
General specification		
Weight (approx.)	40	grams
Protection/sealing	Electronic housing IP68 and IP69K	
Life	>500 million cycles	dependant on environment
Dither life	Contactless - no degradation due to shaft dither	
Operational temperature	-40 to +150	°C
Storage temperature	-55 to +150	°C
Materials	Case: Aluminium 6082, Top cap: GF polymer, Bolt option: Stainless steel 316	

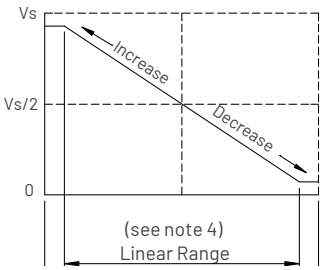
Notes

1. Incorrect wiring may cause internal damage.
2. When shaft marking is facing cable exit, instrument is mid-travel (2.5V output).
3. Non-linearity is calculated from least squares best fit method over the Linear Range.
4. Linear Range = Measurement range x 0.995 Nom.
5. Due to hall effect technology used in this device, ferrous materials and magnetic fields close to the sensor may influence output.
6. General dimension tolerance is ±0.25.

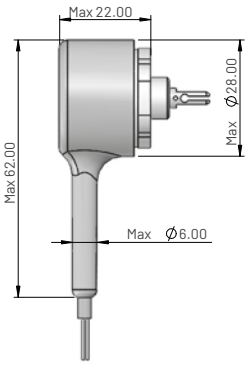
Electrical connections (see note 1)

	Channel	Wire Colour	Function
6 Core	1	Red	Supply Voltage (Vs)
		White	Output Voltage (Vout)
		Black	Ground
	2	Blue	Supply Voltage (Vs)
		Yellow	Output Voltage (Vout)
		Green	Ground
6 Core	3	Red	Supply Voltage (Vs)
		White	Output Voltage (Vout)
		Black	Ground
	4	Blue	Supply Voltage (Vs)
		Yellow	Output Voltage (Vout)
		Green	Ground

Typical output



Accessories



Boot dimensions when fitted
(Boot supplied seperately)

Boot
Part No: JN025-002

Material
Polyolefin

Contact (Europe)
Active Sensors Ltd,
Unit 12, Wilverley Road,
Christchurdch, Dorset,
BH23 3RU, UK

Contact (North America)
Active Sensors Inc,
8520 Allison Pointe Blvd, Suite 220,
Indianapolis,
IN 46250, USA